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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/584,246

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Jonas Nilsson

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DRINKER BIDDLE & REATH (DC)
1500 K STREET, N.W.
SUITE 1100
WASHINGTON, DC 20005-1209

EXAMINER

YEE, DEBORAH

ART UNIT

PAPER NUMBER

1793

MAIL DATE

DELIVERY MODE

03/09/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/584,246	Applicant(s) NILSSON ET AL.	
	Examiner Deborah Yee	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2 to 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese patent 2001-49399 ("JP-399") alone or in view of US Patent 5,714,114 ("Uehara").

3. The English abstract of JP-399 discloses martensitic stainless steel alloy having a composition with constituents whose wt% ranges overlap or closely approximate those recited by claims 2 to 28 ; and such similarities in wt% ranges establishes a prima facie case of obviousness because it would be obvious for one skilled in the art to select the claimed alloy wt% ranges over the broader disclosure of the prior art since the prior art teaches the same utility for making cutting edge tool and same hardness property of >56 HRC See MPEP 2144.05. Also similar to present invention, prior art steel is made by austenitizing, quenching and tempering without deep freezing.

4. In regard to the Cu content, JP-399 teaches a lower limit of 0.1% Cu which closely approximates Applicant's claimed upper limit of <0.1% Cu. Since Applicant has not demonstrated (e.g. by comparative test data) that <0.1% Cu is somehow critical and productive of new and unexpected results, then claims would not patentably distinguish over prior art.

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5. In addition, JP-399 does not teach adding Co whereas Applicant's claims 19, 20 and 21 recite about 0.5%, 1-2% and 0.5 to 2%, respectively. It is, however, well known and conventional practice in the metallurgical art to add up to 5% Co to analogous hardened tool steel to increase hardness as evident by the teaching on lines 60 to 67 of column 7 in Uehara. Since hardness is desired and sought by JP-399, then it would be an obvious modification well within the skill of the artisan to add small amounts of Co in view of secondary teaching to the JP-399 steel to produce no more than the known and expected effect from such an addition.

6. Moreover, prior art specific example 8 in table 1 closely meets the claimed composition and in table 2 exhibits a hardness of 59.4HRC (within the claimed hardness range of >56HRC; and when calculated, has a PRE-value = 25.3 (with in claimed PRE>25) and C: N ratio =2.7 (within the claimed C: N ratio >2).

7. Furthermore, the computer-generated English translation of JP-399 in paragraph [0001] teaches using steel to make edged tool, which would include blade, knife or cutting tool as recited by the dependent claims 8 to 11.

8. Although JP-399 does not disclose steel alloy comprising carbides, nitrides and/or carbonitrides with a maximal diameter not to exceed 5 μm as recited by claim 7, such property would be expected since composition and process of making are closely met and in absence of proof to the contrary.

Claim Objections

9. Claim 23 is objected to because of the following informalities: The term "ration" recited by claim 23 appears to be a typo-error and should be --ratio--. Appropriate correction is required.

Response to Arguments

10. Applicant's arguments filed January 16, 2009 have been fully considered but they are not persuasive.

11. Applicant argued that claims patentably define over JP-399 because prior art steel contains 0.1 to 3% Cu whereas inventive steel contains <0.1% Cu.

12. In response to argument, it is the Examiner's position that even though the claimed Cu range does not overlap with the prior art Cu range, a prima facie case of obviousness still exist because ranges are close enough that one skilled in the art would have expected them to have the same properties in absence of proof to the contrary. Note Applicant has not demonstrated (e.g. by comparative test data) that the claimed Cu range is somehow critical and productive of new and unexpected results. Therefore a composition with 0.1% Cu verses a composition with slightly less than 0.1% would depict a mere difference in the proportion of element without any attendant unexpected results, which would not patentably distinguish claims over prior art.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah Yee whose telephone number is 571-272-1253. The examiner can normally be reached on monday-friday 6:00 am-2:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Deborah Yee/
Primary Examiner
Art Unit 1793

/DY/